

CLAIMS

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is as follows:

1. A method of making an electronic interconnection, said method comprising:
for a signal line to be interconnected, using a plurality of bonding wires
configured to provide a controlled impedance effect.
2. The method of claim 1, wherein said plurality of bonding wires is configured
such that a first bonding wire is located a predetermined distance above a second
bonding wire.
3. The method of claim 1, wherein said plurality of bonding wires is configured
such that a first bonding wire is located a predetermined distance alongside a
second bonding wire.
4. The method of claim 1, wherein one of a first bonding wire and a second
bonding wire of said plurality of bonding wires is grounded.

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5. The method of claim 1, further comprising:

providing a dielectric material such that a predetermined distance is maintained by said dielectric material separating a first bonding wire and a second bonding wire of said plurality of bonding wires.

6. The method of claim 5, wherein said dielectric material is periodically placed along a length of said plurality of bonding wires.

7. The method of claim 5, wherein said dielectric material is continuously placed along a length of said plurality of bonding wires.

8. The method of claim 5, wherein said dielectric material comprises an ultraviolet-cured epoxy.

9. The method of claim 3, wherein a third bonding wire is located a predetermined distance alongside said first bonding wire and said second bonding wire.

10. The method of claim 1, further comprising:

co-dispensing bonding wires of said plurality of bonding.

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11. The method of claim 1, further comprising:

dispensing said bonding wires in said plurality of bonding wires so that
said bonding wires are separated by predetermined distances;
co-dispensing a dielectric material with said bonding wires, said dielectric
material thereby maintaining said predetermined distances of said bonding wires.

12. The method of claim 1, wherein said bonding wires comprise a plurality of
round bonding wires.

13. The method of claim 1, wherein said bonding wires comprise a plurality of
ribbon bonding wires.

14. The method of claim 1, wherein said bonding wires comprise a combination
of at least one round bonding wire and at least one ribbon wire.

15. The method of claim 1, wherein said plurality of bonding wires for said signal
comprises a microstrip.

16. The method of claim 1, wherein said plurality of bonding wires for said signal
comprises a coplanar waveguide.

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17. The method of claim 1, wherein said signal comprises a single-ended signal.

18. The method of claim 1, wherein said signal comprises a differential signal.

19. The method of claim 5, wherein said dielectric material includes particles having a high dielectric constant.

20. The method of claim 19, wherein said particles comprise at least one of glass and ceramic.

21. The method of claim 19, wherein a spacing of intervals of said particles permits an effect of one of a filter and an impedance transformer.

22. The method of claim 6, wherein a spacing of said dielectric material permits an effect of one of a filter and an impedance transformer.

23. A method of reducing high frequency parasitic effects in a chip transition, said method comprising:

for a signal in said transition, using a plurality of bonding wires configured to provide a controlled impedance effect.

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24. A method of fabricating an electronic component, said method comprising:

for a device in said electronic component, using a plurality of bonding wires configured to provide a controlled impedance effect for a signal line connecting to said device.

25. An electronic component comprising:

at least one signal line interconnected such that a plurality of bonding wires is configured to provide a controlled impedance effect for said signal line.

26. An electronic apparatus comprising:

at least one electronic component having at least one signal line interconnected in accordance with claim 25.

27. A method of providing a signal from a chip, said method comprising:

for a signal of said chip, providing a controlled impedance signal line comprising a plurality of bonding wires configured to be separated by a predetermined distance.

28. The method of claim 27, wherein said controlled impedance is designed to be near in value to at least one of an impedance of a circuit of said chip and an

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impedance of a circuit to which said signal line is interconnecting said chip circuit.

29. The method of claim 28, wherein said predetermined distance is maintained by a dielectric material, said controlled impedance being determined by said predetermined distance and a dielectric constant of said dielectric material.

30. The method of claim 28, wherein said plurality of bonding wires are arranged in one of a microstrip configuration and a coplanar waveguide configuration.

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